#### (19) World Intellectual Property Organization International Bureau



## 

## (43) International Publication Date 29 March 2001 (29.03.2001)

### **PCT**

# (10) International Publication Number WO 01/21736 A1

(75) Inventors/Applicants (for US only): VAN DEN BORN, Isaac, Cornelis [NL/NL]; Badhuisweg 3, NL-1031 CM

Amsterdam (NL). SCHILDER, Johannes, Gerardus, Maria [NL/NL]; Badhuisweg 3, NL-1031 CM Amsterdam

(51) International Patent Classification7:

(72) Inventors; and

(NL).

- (21) International Application Number: PCT/EP00/09254
- (22) International Filing Date:
- (25) Filing Language:

English

C10J 3/52

(26) Publication Language:

English

(30) Priority Data:

99307444.2

21 September 1999 (21.09.1999) E

20 September 2000 (20.09.2000)

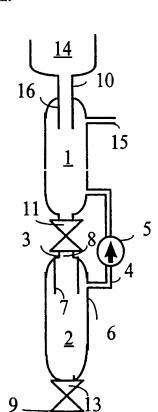
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(81) Designated States (national): AE, AG, AL, AM, AT, AU,

- (71) Applicant (for all designated States except US): SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V. [NL/NL]; Carel van Bylandtlaan 30, NL-2596 HR The Hague (NL).
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,

[Continued on next page]

(54) Title: PROCESS TO REMOVE SOLID SLAG PARTICLES FROM A MIXTURE OF SOLID SLAG PARTICLES AND WATER



(57) Abstract: Process to remove solid slag particles from a mixture of solid slag particles and water present in a quench zone, which quench zone is part of a process for the preparation of synthesis gas by partial combustion of finely dispersed solid carbon-containing fuel with an oxygen-containing gas, by a) discharging of the mixture from the quench zone to a first vessel, (b) discharging slag particles from the first vessel to a second vessel and discharging water poor in solid slag from the second vessel, which second vessel is located below and fluidly connected to said first vessel by means of an open connecting conduit provided with pumping means and is further provided with closed means to discharge slag from its lower end, (c) fluidly closing the first vessel from the second vessel, (d) opening of the means to discharge slag from the second vessel to remove slag from the second vessel to a lower pressure zone, and (e) closing the means to discharge slag from the second vessel and repeating steps (a) to (e).

O 01/21736 A

BEST AVAILABLE COPY

IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, For two-letter codes and other abbreviations, refer to the "Guid-CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

ance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

#### Published:

- With international search report.
- Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.